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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/431,366 | 11/01/1999 | DAVID BAGGETT | 09765/018001 | 8583 |

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| EXAMINER |
|---|
| PHAM, KHANH B |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2166 | |

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/431,366 | BAGGETT ET AL. |
| | Examiner | Art Unit | |
| | Khanh B. Pham | 2166 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on *13 October 2006*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) *1-32* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-32* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *01 November 1999* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☐ All   b) ☐ Some *  c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1.     In view of the Appeal Brief filed on October 13, 2006, PROSECUTION IS

HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the

following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed

by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and

appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth

in 37 CFR 41.20 have been increased since they were previously paid, then appellant

must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by

signing below.


### Drawings

2.     The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they do not include the following reference sign(s) mentioned in the

description: "server process 18" recited in the specification page 6, line 27 and page 7

line 12. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. Each drawing sheet

submitted after the filing date of an application must be labeled in the top margin as

either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the

changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings

will not be held in abeyance.


### Claim Rejections - 35 USC § 101

3.      35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

**Claims 1-18, 30-32** are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claims 1-18 and 30-32 are directed to abstract idea which does not result in a

practical application with provide useful, concrete and tangible result.

Claims 5-18 recite a system. However, the claims lack the necessary physical

articles or objects to constitute a machine or a manufacture within the meaning of 35

USC 101. They are clearly not a series of steps or acts to be a process nor are they a

combination of chemical compounds to be a composition of matter. As such, they fail to

fall within a statutory category. They are, at best, functional descriptive material *per se*.

## *Claim Rejections - 35 USC § 112*

4.      The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5.      **Claims 3-4** are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement.  The claim(s) contains subject matter which

was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the

invention.

Claim 3 recites:

"The method of claim 1 wherein determining if stored answer is stale comprise:

scheduling a list of keys...

submitting a query...

storing the result in the cache..."

However, as shown in Figs. 6, 8A, the scheduling, submitting and storing steps

are not part of the determining step. These steps are the steps to be performed after the

determining step. Similar rationale is also applied to claim 4.

## *Claim Rejections - 35 USC § 102*

6.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.      **Claims 1, 5, 19, 23** are rejected under 35 U.S.C. 102(e) as being anticipated by

Lynch et al. (US 6,839,679 B1), hereinafter "**Lynch**".

**As per claim 1**, Lynch teaches a method for managing a cache including entries

that correspond to seat availability information (Col. 3 lines 33-40) comprises:

- "proactively determining if a stored answer in the cache is stale" at Col. 5 line 59

  to Col. 6 line 14 and Fig. 3;

- "the stored answer corresponding to seat availability information for a seat on a

  mode of transportation" at Col. 3 line 64 to Col. 4 line 14 and Fig. 1, element 18;

- "with determined based on the needs of a travel planning system that makes

  queries to the cache for obtaining the seat availability information" at Col. 5 lines

  59 to Col. 6 line 14;

- "and if the stored answer pertaining to seat availability information is stale,

  sending an availability to a source of seat availability information for the mode of

  transportation based on determining that the answer was stale" at Col. 6 lines

  15-35.

**As per claim 5**, Lynch teaches an availability system for travel planning system (Fig. 1) comprises:

- "a cache including a plurality of entries of availability information of seat for a mode of transportation" at Col. 3 line 56 to Col. 4 line 14 and Fig. 1, element 18;

- "a cache manager that manages a quality level of entry information in the cache by proactively populating the cache to maintain a high quality level of entries of seat availability information in the cache" at Col. 5 line 59 to Col. 6 line 14;

- "with the quality level of the seat availability information in the cache determined by evaluating entries in the cache according to a criterion related to needs of a travel planning system that makes query to the cache for obtaining seat availability information" at Col. 5 line 59 to Col. 6 line 14;

- "and that sends an availability query to source of seat availability information for the mode of transportation based on determining that the seat availability information in the cache was stale" at Col. 6 lines 15-35.

**As per claim 19**, Lynch teaches a computer program product for managing a cache for predicting availability information for a mode of transportation comprises:

- "proactively determined whether a stored answer in the cache is stale" at Col. 5 line 59 to Col. 6 line 14 and Fig. 3;

- "the stored answer corresponding to seat availability information for a seat on the mode of transportation" at Col. 3 line 56 to Col. 4 line 14

- "with instructions to determine being based on needs of a travel planning system that makes queries to the cache for obtaining the seat availability information" at Col. 5 line 59 to Col. 6 line 14;

- "update the stored answer in the cache when the stored answer is stale by sending an availability query to a source of availability information for the mode of transportation" at Col. 6 lines 15-35.

**As per claim 23**, Lynch teaches a computer program product comprising:

- "cache entries of seat availability information for a mode of transportation" Col. 3 line 56 to Col. 4 line 14 and Fig. 1, element 18;

- "manage a quality level of the entries of seat availability information in the cache by evaluating entries in the cache according to a criterion determined based on needs of a travel planning system that makes queries to the cache for seat availability information, to determined when an entry in the cache should be added, deleted or modified" Col. 5 line 59 to Col. 6 line 14;

- "delete or modify the entry based on determining that the entry should be deleted or modified" at Col. 6 lines 15-35;

- "proactively populate the cache by sending an availability query to a source of seat availability information for the mode of transportation based on determining the entry should be added or modified" Col. 6 lines 15-35.

8.      **Claims 23, 30** are rejected under 35 U.S.C. 102(e) as being anticipated by

Walker et al. (US 2005/0177402 A1), hereinafter "Walker".

**As per claim 23**, Walker teaches a computer program product comprising:

- "cache entries of seat availability information for a mode of transportation" at

  [0048]

- "manage a quality level of the entries of seat availability information in the cache

  by evaluating entries in the cache according to a criterion determined based on

  needs of a travel planning system that makes queries to the cache for seat

  availability information, to determined when an entry in the cache should be

  added, deleted or modified" at [0078]-[0082] and Fig. 13;

- "delete or modify the entry based on determining that the entry should be deleted

  or modified" at [0081]-[0082];

- "proactively populate the cache by sending an availability query to a source of

  seat availability information for the mode of transportation based on determining

  the entry should be added or modified" at [0076].

**As per claim 30**, Walker teaches a method for managing availability information

for a seat on mode of transportation comprises:

- "determining which entries to add, delete, or update in a cache by monitoring and

  examining availability queries made to the cache by a travel planning system to

  determine which instances of transportation have high demand for availability

  information" at [0078]-[0082] and Fig. 13a-b;

• "proactively updating entries in the cache if an instance of transportation of

transportation is determined to have a higher than average or higher than

expected demand" at [0037], [0078]-[0082].

## Claim Rejections - 35 USC § 103

9.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.     **Claims 1-3, 5-21, 23-32** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Mehovic (US 6,122,642 A) and in view of Filepp et al. (US

2003/0167307 A1), hereinafter referred to as Mehovic and Filepp.

**As per claims 1, 5, 19, 23 and 30**, Mehovic substantially teaches the claimed

invention including an airline computerize reservation system ("CRS") to provide flight

and seat availability information (Col. 2 lines 5-20), Mehovic also teaches at Fig. 4 a

cache (Fig. 4, element 20) stores data propagated from the CRS 12 data, which is used

to response to queries from client 26 (Col. 3 lines 54-58).

The different between Mehovic's system and the claimed invention is that

Mehovic uses different cache management algorithm. Mehovic synchronizes the cache

20 with the CRS by propagating data immediately after CRS 12 updates the data or at

definable intervals of time (Col. 3 lines 59-65), and therefore does not teach proactively

update the cache based on frequency of access to the cache as claimed. However,

Filepp teaches an airline reservation system (page 4, [0052]) utilizing caches storage

(Fig. 2, 302) wherein the objects in caches are proactively updated based on frequency

of access to the objects in the caches (page 50, [0821]-[0823]). Thus, it would have

been obvious to one of ordinary skill in the art at the time of the invention was made to

combine Filepp's cache management algorithm with Mehovic's CRS system so that

"only the latest version of the object will be provided to guarantee currency of

information to the user" as noted by Filepp at page 50, [0821]. By factoring the

frequency of updating of updating of the objects in order to determine whether cached

objects are current, Mehovic's system would detect the fights with high frequency of

access, which implies that the number of available seats are also changed more

frequently, and update the flight data so that the availability information for that flight is

updated and current, therefore prevent overbooking or assigning the same seat to

multiple passengers.

**As per claim 2**, Mehovic and Filepp teach the method of claim 1 as discussed

above. Filepp also teaches: "monitoring availability queries made to the cache by a

travel planning system to determine which flights, sets of flights, the flights for a certain

day, date, or market have a high demand for availability information" at pages 50-51,

[0821]-[0827].

**As per claim 3**, Mehovic and Filepp teach the method of claim 1 as discussed above. Mehovic also teaches: "scheduling a list of keys where the list of keys are identifiers of specific instances of transportation to update or add, and for each key on the list in the order given, submitting a query to the availability source; and storing the result in the cache, by updating an entry if present and adding an entry if not present in the cache." at Col. 6 line 40 to Col. 7 line 15.

**As per claim 6**, Mehovic and Filepp teach the system of claim 5 as discussed above. Filepp also teaches the cache manager determines when an entry should be added to the cache at [0826].

**As per claim 7**, Mehovic and Filepp teach the system of claim 5 as discussed above. Filepp also teaches the cache manager determines when an entry should be deleted from the cache at [0827].

**As per claim 8**, Mehovic and Filepp teach the system of claim 5 as discussed above. Filepp also teaches the cache manager determines when an entry already in the cache should be modified at [0821].

**As per claim 9**, Mehovic and Filepp teach the system of claim 5 as discussed above. Mehovic also teach entries to be added, modified, or delete are obtained by asynchronous notification from external systems at Col. 3 lines 60-65.

**As per claim 10**, Mehovic and Filepp teach the system of claim 9 as discussed above. Filepp also teach entries to be added, modified, or delete are taken from a list or multiple list at [0830].

**As per claim 11**, Mehovic and Filepp teach the system of claim 10 as discussed above. Filepp also teaches the entries in the list include predetermined orderings or priority at [0830].

**As per claim 12**, Mehovic and Filepp teach the system of claim 10 as discussed above. Filepp also teaches entries to be added, modified, or delete are determined from a distribution or nature of availability queries poses to the cache at [0826]-[0827].

**As per claim 13**, Mehovic and Filepp teach the system of claim 10 as discussed above. Filepp also teaches entries to be added, modified, or deleted are determined by using a predictor or model of the availability queries which are likely to be posed or are likely to be useful in the future at [0826]-[0830].

**As per claim 14**, Mehovic and Filepp teach the system of claim 13 as discussed above. Filepp also teaches the predictor or model is based on a deterministic, probabilistic, or statistical classifier or predictor, databases or cache of historical data or

previously predicted information, simulations of various availability systems and actually

availability data sources" at [0826]-[0830].

**As per claim 15**, Mehovic and Filepp teach the system of claim 10 as discussed

above. Filepp also teaches entries to be added, modified, or deleted are determined by

comparing actual answer or cached answers to predictions made by a predictor or

model of the availability information at [0826]-[0830].

**As per claim 16**, Mehovic and Filepp teach the system of claim 13 as discussed

above. Filepp also teach the predictor used to guide the cache manager operation

predicts the rate of change or time of change at [0826]-[0830].

**As per claim 17**, Mehovic and Filepp teach the system of claim 10 as discussed

above. Filepp also teaches entries to be added, modified, or deleted are determined by

prior knowledge at [0826]-[0830].

**As per claim 18**, Mehovic and Filepp teach the system of claim 10 as discussed

above. Filepp also teaches entries to be modified or deleted are determined by the data

of travel or the seat in comparison to the current date at [0826]-[0830].

Independent claims 20-21, 24-29, 30-32 recite similar limitations as discussed

above. Claims 20-21, 24-29 and 30-32 are also rejected by the same reasons.

11.    **Claims 4, 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Mehovic and Filepp as applied to claims above, and further in view of Khosravi-Sichani

(US 5,983,217 A), hereinafter "Khosravi".

     **As per claims 4, 22**, Mehovic and Filepp teach the method of claims 1, 19 as

discussed above. Mehovic and Filepp do not teach the step of processing query entry

using round-robin algorithm as claimed. However, querying using round-robin is well

know in the art, as exemplary by Khosravi. Khosravi teaches a method of querying

replicate database using round-robin algorithm in order to "provide an even loadsharing

of queries" (Col. 1 lines 55-65). Thus, it would have been obvious to one of ordinary skill

in the art at the time of the invention was made to combine Khosravi with Mehovic and

Filepp's teaching because employing round-robin algorithm would ensure that all

queries are processed equally and providing an even loadsharing of queries.


### *Response to Arguments*

12.    Applicant's arguments in the appeal brief filed October 13, 2006 have been fully

considered but they are not persuasive. The examiner respectfully traverses applicant's

arguments.

     Regarding claims 1, 19, applicant argued that Mehovic does not teach "a cache

including entries that correspond to seat availability information" because Mehovic does

not explicitly teach the American Airline's SABRE Computerized Reservation System

contain "seat availability information", which is then propagated to the RDBMS for

retrieval and use by the end user. The examiner respectfully submits that the SABRE

CRS system is well known in the art and has been used by travel agents since 1960s to

retrieve flight information, **seat availability** and booking information. To illustrate this

fact, both Lynch and Walker references (these references were used on separated

rejections in this Office Action) clearly show that the SABRE CRS system contains "seat

availability information". For example, Lynch teaches: "Each computer reservation

system 24 may be one or more commercially available computer reservation system

such as, for example, SABRE owned by American Airline... Computer reservation

system 24 provide online travel service inventory information"(Col. 4 lines 45-55).

Walker also teaches: "The inventory and pricing information for both the special fare

listing and the actual flights is transmitted by the ASR 150 to the CRS 300... Example of

such a CRS are known under the trade manes Apollo, Sabre, System One and the like"

at [0038]. Clearly, in is undeniable that the SABRE contain "seat availability data"; and

the data contained in the SABRE is propagated into the RDBMS, therefore, after

propagation, the RDBMS also contains "seat availability data" as claimed.

Further, Mehotic's PNR (passenger name record) also contains "seat availability

information" because it includes "flight, booking-code, fare and payment information",

which clearly shows the seat booked by that particular passenger is unavailable

because it is already booked.

Further more, it is noted that theses differences are only found in the non-

functional data stored on storage devices. The data identify "seat availability

information" is not functionally related to the claimed method. For example, replacing

"seat availability information" with equivalent data such as "parking space availability

information" does not effect the claimed method. Thus, this descriptive material will not

distinguish the claimed invention from the prior art in terms of patentability, see Cf. In re

Gulack, 703 F.2d 1385, 217 USPQ 401, 404 (Fed. Cir 1983); In re Lowry, 32 F. 3d

1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Applicant also argued that the combination of Mehovic with Filepp is not

suggested. On the contrary, Mehovic teaches a CRS utilizing a cache (i.e. RDBMS) to

response to user's query while Filepp teaches an airline reservation system (page 4,

[0052]) utilizing caches storage (Fig. 2, 302) wherein the objects in caches are

proactively updated based on frequency of access to the objects in the caches (page

50, [0821]-[0823]). Thus, it would have been obvious to one of ordinary skill in the art at

the time of the invention was made to combine Filepp's cache management algorithm

with Mehovic's CRS system so that "only the latest version of the object will be provided

to guarantee currency of information to the user" as noted by Filepp at page 50, [0821].

By factoring the frequency of updating of updating of the objects in order to determine

whether cached objects are current, Mehovic's system would detect the fights with high

frequency of access, which implies that the number of available seats are also changed

more frequently, and update the flight data so that the availability information for that

flight is updated and current, therefore prevent overbooking or assigning the same seat

to multiple passengers.

In response to applicants' argument that "Mehovic does not proactively

determine if the cache are stale", the examiner respectfully submit that Mehovic teaches

at Col. 3 lines 60-65 the steps for data propagation from the SABRE system to the

relational database (i.e., updating the data in relational database 24 using the data from

the SABRE system 12), wherein the propagation occur immediately after the system 12

updates the data, or at definable intervals of time. It is apparent that after the data in the

SABRE system is updated, the data stored in the relational database 24 is stale.

Mehovic therefore monitors the data in the SABRE system 12 to determine if the cache

is stale. As soon as the data in the SABRE system 12 is updated, the updated data is

propagated to the relational database in order to keep the cache current, or in sync with

the SABRE system (Col. 3 lines 59-65). Mehovic's cache update method is "proactively"

because the data in the cache is updated before it is used to provide information to the

client 26.

Applicant argued that claim 1 requires that the criterion for updating the seat

availability information is based on the needs of the travel planning system that make

queries to the cache, not frequency of access to the objects in the caches", but does not

explain what the criterion is and how they are different. The claim 1 requires "criterion

determined based on needs of a travel planning system that make query to the cache",

therefore, if the needs of a travel planning system are current and updated information,

then Mehovic anticipates this limitation because Mehovic teach the step of propagating

updated data to the cache 20 in order to provide current and updated information to the

client 26 which make query to the cache. Claim 2 further defines the step of

determining, which comprises monitoring queries made to the cache to determine which

flight have a high demand for availability information. The examiner interprets this

limitation as monitoring frequency of accessing to the object in cache, because the flight

has high demand implies that the data about that flight is accessed more frequent.

Claim 1 is therefore directed to a method for updating data in caches based on

the frequency of accessing to the object in caches. An ordinary skill in the art would

recognize that if an object in cache in accessed more frequent, the data contained in the

object will expired faster and therefore it would requires update from the data source for

updated data. For example, if the data for a particular flight is accessed more frequently,

the number of available seats are also changed more frequently, therefore updating the

flight data from the data source is needed so that the availability information for that

flight is updated and current, in order to prevent overbooking or assigning the same seat

to multiple passengers. The Filepp reference is relied on by the examiner to show this

fact.

Applicant argued that Filepp does not teach: "wherein the object in caches are

proactively updated based on frequency of access to the objects in the caches". On the

contrary, Filepp teches at [0821] that "when objects are requested from object storage

facility 439, only the latest version of the object will be provided to guarantee currency of

information to the user". This means that the objects in cache 439 are proactively

updated, so that in only contains the latest version of the object, before receiving

request for the objects. Filepp also teaches at [0823] that "The frequency with which the

currency of objects is checked depends on factors such as the frequency of updating of

the objects", which means that the frequency of updating object in caches is based on

the frequency of updating the object as claimed.

Regarding claims 2, 20, 30 and 31, applicant argued that Mehovic and Filepp as combined, do not teach "monitoring availability queries make to the cache by a travel planning system to determine which flight, sets of flights, the flight for a certain day, date, or market have a high demand for availability information. On the contrary, Mehovic teaches a system to provide seat availability information for flights using data stored in a cache 20. Filepp teaches a method for updating object stored in a caches based on the frequency of access to the objects in the caches. When Mehovic and Filepp are combined, the objects in Filepp's caches should be interpreted as data related to seat availability information as taught by Mehovic. Therefore, Filepp teaches a method of monitor the access to objects to detect the frequency of access to the object, then updating objects in caches to keep them current based on the frequency of access to the objects, when implemented in Mehovic system, would result in monitor access to flight data objects (i.e., flight , set of flight, flight for a certain day, market) and high frequency of access to the objects corresponds to high demand flights.

Regarding claims 3 and 21, applicant argued that Mehovic and Filepp do not teaches "scheduling a list of keys where the list of keys are identifiers of specific instance of transportation to update or add." On the contrary, Mehovic teaches at Col. 6 line 40 to Col. 7 line 14 a set of unique identifiers which are used to retrieve a specific instance of transportation (i.e., flight record) from the CRS. For example, Mehovic teaches the set of keys comprises Airline Code, Flight Number, Departure City Code, Arrival City Code, and Departure Date.

Applicant's argument regarding the remaining claims are similar to the claims discussed above and therefore not persuasive in view of the above discussion.

In light of the foregoing arguments, the 35 U.S.C 103 rejections are hereby sustained.

## Conclusion

13.    The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is **(571) 272-3574** for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner
Art Unit 2166

November 15, 2006

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